BROMINE TRIFLUORIDE

UN 1746

Shipping Name: Bromine trifluoride
Other Names: Bromine fluoride

WARNING!

- POISON! BREATHING THE GAS OR SWALLOWING THE LIQUID CAN KILL YOU! SKIN AND EYE CONTACT CAN CAUSE SEVERE BURNS AND BLINDNESS!
- Fire fighting gear (including SCBA) provides NO protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel
- DO NOT USE WATER! REACTS VIOLENTLY WITH WATER EVEN AT VERY LOW TEMPERATURES PRODUCING TOXIC HYDROGEN FLUORIDE VAPORS!
- STRONG OXIDIZER! WILL INCREASE THE INTENSITY OF A FIRE AND MAY CAUSE FIRE UPON CONTACT WITH COMBUSTIBLES!

Hazards:

- Vapors and fumes are heavier than air and will collect and stay in low areas
- Exposure of cylinders to fire and flame or elevated temperatures may cause cylinders to rupture or frangible disc to burst, releasing entire contents of cylinder. Ruptured or venting cylinders may rocket through buildlings and/or travel a considerable distance
- Reacts with acids to produce toxic bromine and fluorine fumes
- Decomposes upon heating to produce toxic hydrogen bromide and hydrogen fluoride fumes
- Reacts violently with many metals, glass, wood and some plastics
- Corrosive to many common metals and glass

Awareness and Operational Level Training Response:

- DO NOT ATTEMPT RESCUE!
- Stay upwind and uphill
- Determine the extent of the problem
- BACK OFF! - Isolate a wide area around the release or fire, deny entry and call for expert help
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE
- Evacuate or shelter in place the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water

Description:

- Colorless to pale yellow fuming liquid
- Pungent irritating odor
- Reacts violently with water to produce toxic hydrogen fluoride fumes
- Nonflammable but may cause combustibles to ignite
- Vapors are heavier than air and will collect and stay in low areas
- Freezes at 48° F
- Produces large amounts of vapors

Operational Level Training Response:

RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release
- Use large amounts of water well away from the release to disperse vapors - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk

FIRE:

- Approach fire with extreme caution; consider letting fire burn
- If possible do not allow water to come in contact with the material. Material does not burn; fight surrounding fire with an appropriate agent, if water must be used, use it in flooding quantites
- If material is not leaking, cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (unvented container distorts, bulges or shows any other signs of expanding), withdraw immediately to a secure location

First Aid:

- DO NOT ATTEMPT RESCUE!
- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
  - Inhalation - remove the victim to fresh air and give oxygen if available
  - Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
  - Eye - rinse eyes with large volumes of water or saline for 15 minutes
  - Ingestion - do not induce vomiting
- Victims should be examined by a physician as soon as possible
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

CAS 7787-71-5